

Del Norte County Unified School District
Smith River Elementary School
546 First Street
Smith River, California

Notice of Proposed No Further Action related to petroleum discharges.
Comment Period ends **June 14, 2003**

Site History: The Del Norte County Unified School District Smith River Elementary School is located north of Smith River and west of Rowdy Creek. In 1994, one 1,000-gallon diesel underground storage tank (UST) and one 2,000-gallon diesel UST were removed. The 1,000-gallon UST originally stored gasoline, but when it was inadvertently filled with diesel, it was converted to a diesel UST. Both tanks were corroded and had numerous pinholes. The maximum concentration (9,000 ug/g) of Total Petroleum Hydrocarbons as diesel (TPHd) was detected in soil sample S-2 collected below the UST at 7.5 feet below ground surface (bgs). Total Petroleum Hydrocarbons as gasoline (TPHg) was also detected in soil sample S-2 (1.6 ug/g). Groundwater was not encountered during the removal of the tanks. The excavation pit included the area of both USTs. Both TPHg (1000 ug/g) and TPHd (6,300 ug/g) were detected in soil sample S-5 collected from the bottom of the excavation pit at 20 feet bgs. The UST cavity was then lined with plastic and the over-excavated soil was placed back in the plastic-lined cavity, and backfilled to the surface with river-run gravel.

First Subsurface Investigation: In July 1995, six soil borings B1 through B6 were installed at the site. Soil samples were collected from the borings at approximately 4 to 5-foot intervals. Laboratory results indicated only TPHg (2.0 ug/g), TPHd (up to 43 ug/g) and toluene (up to 0.023 ug/g) in soil, however, TPHd (61,000 ug/L) in groundwater was detected adjacent to the tank cavity at a depth of 27 feet bgs. TPHg, toluene, ethylbenzene and total xylenes were also detected in groundwater at concentrations of 530 ug/L, 0.91 ug/L, 0.83 ug/L and 4.9 ug/L, respectively.

Second Subsurface Investigation: Seven years later, in July 2002, four borings (B7-B10) were installed at the site. Soil and groundwater samples were collected and analyzed for TPHd, TPHg, benzene, toluene, ethylbenzene, xylenes and MtBE. Lab analyses results for the soil samples indicated no analytes were detected above the stated limits. The laboratory reported MtBE in groundwater from borings B7, B8 and B9 at concentrations of 0.99 ug/L, 0.78 ug/L and 1.1 ug/L, respectively. These results are well below the MtBE water quality goals for health (13 ug/L) and taste and odor (5 ug/L). No other analytes were detected above the stated limits.

Hydrogeology: The general vicinity is a gently sloping broad marine terrace surface that is overlain by flood plain deposits from the Smith River and Rowdy Creek. The soil types encountered were clayey silts to approximately 11 feet below ground surface (bgs), underlain by silty sands to approximately 24 feet bgs. Angular gravels were present at 24 feet bgs, underlain by a clay unit to 25 feet bgs, and another sandy gravel unit to 32 feet bgs.

Sensitive Receptor Survey: The directional gradient, calculated from the 1995 soil borings (B4, B5, B6), is oriented toward the southwest, generally towards the Smith River. Domestic water is municipally supplied. There are no wells within 1,000 feet of the site.

Conclusion: The primary source was removed in 1994. The most recent results of chemical analyses for petroleum hydrocarbons of soil and groundwater samples, collected from the former underground storage tank site, indicate there is no threat to water quality. Any previous existing petroleum hydrocarbon contamination has been degraded over the last seven years to non-detect levels in the soil and groundwater.

Concentrations of TPHg and TPHd in groundwater detected in 1995, north of the former UST cavity, have decreased to below detection limits. TPHg and toluene in groundwater detected in the southern area of the site also have decreased to below detection limits. Although the MtBE in groundwater may not have originated on-site, the concentrations are below water quality objectives. The most recent 2002 results of soil and groundwater analyses show that the petroleum impacted soil, used in 1994 for backfill in the lined former UST cavity, has not migrated or impacted groundwater over the last eight years. The former UST cavity is separated from the regional aquifer by several clay layers, and any possible remaining sorbed-phase contamination in the soil will not impact groundwater.

Proposed Action: Site is proposed for no further action.

MtBE Status: The MtBE concentrations detected in three groundwater samples are well below the MtBE water quality goals for health (13 ug/L) and taste and odor (5 ug/L)

Unless comments are received or new information is presented, Regional Water Board staff plan to concur with no further action upon conclusion of the comment period. Please contact Ron Allen by telephone at (707) 576-2848 or email at aller@rb1.swrcb.ca.gov for all issues concerning the Smith River Elementary School site.